



THE EASTERN IOWA DX'ER

WINTER 1991

NEWSLETTER OF THE EASTERN IOWA DX ASSOCIATION

Officers:

Glen Kesselring, KOJGH, President

John Lenahan, KORW, V.P.

Gary Ernst, KOGVB, Sec./Treas.

The Winter meeting of the EIDXA will be held Friday January 25th, 1991, 7:30 PM at the REC building in Marion (corner of 35th St. and 10th Ave.) A "DX" video is planned for the program.

OPERATING EVENTS

Jan. 19-21 ARRL VHF Sweepstakes

Jan. 25-27 CQ WW 160M CW test

Jan. 26-Feb. 3 Novice Roundup

Feb. 16-17 ARRL DX CW Contest

Feb. 22-24 CQ WW 160M SSB test

Mar. 2-3 ARRL DX SSB Contest

Mar. 30-31 CQ WW WPX SSB Contest

THANK YOU!

Let us not forget the debt that we all owe the outgoing officers of the EIDXA, for their time, their imagination and their efforts. Talk about a hard act to follow! So thank you Steve, NUOP, Tom, WBBZRL and Tom, NCOO!

FROM THE PRESIDENT

(Your Editor never did receive a written item for the newsletter so I made a telephone call and this is what was reported!) At o'dark-thirty last Friday, Glen, KOJGH, was found sitting

upright at his rig, his hand suspended above the keyer, his other on the transceiver dial. His face was dull and lifeless, failing to react to any outside stimulus. While a similar condition has occurred several times in the past, this time it was unusual because he failed to react to a DX call. His YF called the local doctor who diagnosed his condition as "Rig-mortis", a catatonic state brought on by working "YA" and "ZA" Slims. At press time no further word is available on his condition and it is only hoped he will be able to preside at the upcoming meeting! (Wonder if he will get an item to me next time?)

FROM THE V.P./EDITOR

You may have noticed an item in the "operating events" that has not been seen in years past, like the Novice Roundup. This is an event I have participated in for as many years as I can remember! This is an opportunity for you to "remember your roots" and give a Novice some help in his contest with a "good fist" at a reasonable speed! I have received many "thank you's" from Novice/Technician ops and the regular disbelief that anyone with an Extra class call would take the time! Yes, it is hard to "slow down" but it's worth the effort. Spend just one night, enjoy yourself and help a fellow tester!

Sunspot Maximum Yet?

The January 1991 issue of *Sky & Telescope* magazine has an interesting article entitled, "Did Sunspot Maximum Occur in 1989?" written by solar physicist Patrick McIntosh of NOAA Space Environment Laboratory, Boulder Colorado. According to McIntosh, "Solar maximum lasts about four years, during which the monthly sunspot-number index can soar at any time. Attempts to predict the *exact* time of sunspot maximum, therefore, may be futile. For example, rather than forecasting the peak of Cycle 22 to occur in March of 1990, a better approach would have simply placed the maximum somewhere between December, 1988 and December 1992, with the highest monthly sunspot number most likely in the first half of that interval." He explains that it is difficult, if not impossible, to be more specific due in part to "the inherent variability of the Sun itself" and the lack of a "reliable sunspot database [which] includes only a dozen complete cycles". McIntosh concludes as follows, "A century or more in the future, the accumulated observations of sunspots and other solar indexes may also give sufficient data for effective, empirical forecasts. Until then, the prediction of sunspot cycles will continue to be more an art than a science."

New Codeless Class License

ARRL Bulletin 54 "FCC announced on December 13, that new Technician Class license applicants will not have to

demonstrate Morse code proficiency in order to have privileges above 30 MHz. Implementation is expected by February, 1991. The codeless Technician written exam will have 55 questions." (the present exam has 30)

FUTURE SHOCK! BY W3BRZ

Via packet from WB8ZRL

DECEMBER 1, 2001, NEW OPERATORS

LICENSE ANNOUNCED TODAY! The ARRL and FCC have announced that a new Amateur License will be available this summer. The new "Operators Class" license will replace the existing Extra, Advanced, General, Technician, and Novice class license. No code will be required or necessary under the new license, and, further, since knowledge of electronics has been found to be old fashioned and antiquated, no written exam will be given. This is in complete agreement with the League, whose Board of Directors, at last month's meeting, rendered an agreement stating that the present written exam, consisting of ten true false questions was much too difficult for the average Ham-to-be! FCC has also announced that this new license will help to increase the Amateur ranks from its present all time low of 5.5 million and to promote more intelligent technicians and engineers for the Amateur Radio community! The new operators license will be packaged with each "new" amateur transceiver and will contain a number/letter group that will be suitable for a call-sign. Those amateurs already licensed be (continued)

(FUTURE SHOCK continued)

"grandfathered" and required to use the letter "K" or "W" followed by their ZIP code to represent their call signs. It is hoped that this new move by the Commission and ARRL will increase the number of amateurs to overflowing and allow each American a "fair" chance to become a Ham. Sources at Headquarters have learned that the Commission is planing a medical exemption for all those unable to fill out their new form! Further information in February 2001 QST.

MINUTES, OCT. 1990 MEETING

The meeting was called to order at 19:31. After introduction of members and guests, committee reports were given. There was a discussion lead by N4RR on his packet cluster node, WA3TIH discussed the possibility of a digipeater/node in the Muscatine area and WOSR reported on the DXAC news. NFOAD was approved for membership. Then the election of officers. KOJGH and KORW were nominated for president. KOJGH was elected. KORW and WBOZKG were nominated for vice-president, KORW was elected. KOGVB was nominated secretary/treasurer and ran unopposed and was declared elected. The meeting adjourned at 21:25. The following were in attendance for the October 1990 meeting of the EIDX. KOGT, KOVZR, N4RR, WDOAWL, WDMJN, NBOH, KCDQ, WOIZ, WADFYG, NGOW, WOWP, WKOI, WEOU, KORW, KOJGH, KOGVB, WOPPF, KEOY, K9UQI*, N9OK*, NOEL*, NOICI, KDORT, KOYM, NYOY, WROU*, WBOB, AAOCB, KADCWR, WBOZKG, KOAL, WA3TIH*, WOSR, WB8ZRL, NC00, NUOP. *=guest.

TREASURERS REPORT

As of January 1, 1991

GENERAL FUND	\$ 540.80
Dues collected	\$ 160.00
Coffee (Oct meet)	\$ 11.10
EXPENSES	
Repeater Coordination	-\$ 5.00
General Fund Balance	\$701.90
REPEATER FUND	
Balance forward	\$ 5.00
Income (contributions)	\$40.00
Balance	\$49.90

NOSM 160M MULTI-OP

(Contesting from the Cabin)

NOSM reports 1407 QSOs and 78 multipliers for a total of 109,746 points as the multi-op effort for the 1990 ARRL 160 meter contest. Some of those participating/operating were: Steve, NOSM - host, John, NROE - keeper of the fire, Glen, KOJGH - entertainment committee, NOICI, Grant - in charge of Glen (impossible task!), John, KORW - in charge of "forced air" and asst. to the fire keeper, George, WEOU - the "super - duper!" and Jim, "I think I overslept", NOJL. For those of you not in the know, this is the premier annual operating event of rural Davis county and is attended by only the best operators in southeast Iowa (mostly!). Overall, a great reason to lose a nights sleep!

WWV Solar Information

The following "Appendix" pages were supplied by Tom, NC00. I think they may answer some questions about the WWV solar information available at 18 minutes after the hour every day!

Appendix B

Geophysical Alert Announcements

The following is the voice message format for geophysical alerts on WWV.

A. Solar-terrestrial indices for (month - day) follow: (Always include the first two.)

1. (X) Solar flux (value) and A-index (value)
(X) Repeat, solar flux _____ and A-index _____
 2. () The Boulder K-index at 1800 UT on (day) was (value)
repeat, (value)
() The Boulder K-index at 0000 UT on _____ was
repeat, _____
() The Boulder K-index at 0600 UT on _____ was
repeat, _____
() The Boulder K-index at 1200 UT on _____ was
repeat, _____
- B. Solar-terrestrial conditions for the last 24 hours follow: (includes any of the following.)

1. (X) Solar activity was (very low) (low) (moderate) (high) (very high)
 2. (X) Geomagnetic field was (quiet) (unsettled) (active)
 3. () A (minor) geomagnetic storm (began at _____ UT) (is in progress) (ended at _____ UT)
 4. () A major flare occurred at (day - hour UT) (coordinates)
 5. () A proton flare occurred at (day - hour UT) (coordinates)
 6. () A satellite proton event (began at _____ UT) (is in progress) (ended at _____ UT)
 7. () A polar cap absorption event (began at _____ UT) (is in progress) (ended at _____ UT)
 8. () Stratoswarm (alert - days(s)) (in progress) (ended - days)
- C. The forecast for the next 24 hours follows: (includes any of the following)
1. (X) Solar activity will be (very low) (low) (moderate) (high) (very high)
 2. (X) The geomagnetic field will be (quiet) (unsettled) (active)
 3. () A geomagnetic storm is expected (days - approx. time UT)
 4. () A proton event is expected (days - approx. time UT)
 5. () Stratoswarm (alert - days(s)) (in progress) (ended - days)
- (brief description of conditions)

Glossary of Terms for the WWV Voice Message Geophysical Alerts

A.1. *Solar Flux*: Radio flux in flux units ($10^{-22} \text{Wm}^{-2} \text{Hz}^{-1}$) at 10 cm (2800 MHz) at local noon (1700 GMT); observed at the Algonquin radio observatory, operated by the Canadian National Research Council, Ottawa.

A-index: The A-index is derived from eight successive 3-hourly K-indices and gives an indication of how disturbed the geomagnetic field has been over a 24-hour period (in this case, the current GMT day). The A-index reported is that observed at Fredericksburg, Virginia (a midlatitude station).

A.2. *K-index*: The K value is a quasi-logarithmic index of geomagnetic activity over a 3-hour period ranging from 0 (very quiet) to 9 (very disturbed). It is obtained by determining the maximum deviation from the quiet day curve of the most disturbed component of the geomagnetic field. The K-index reported is that observed at Boulder, Colorado.

B.1. Solar Activity:

Very Low: Usually only quiet regions on the solar disk and no more than five of these; fewer than ten class C subflares without centimetric radio bursts or Sudden Ionospheric Disturbance (SID) observed or expected.

Low: Usually more than five, but less than ten, quiet regions on the solar disk; only class C subflares without centimetric radio bursts or SID observed or expected.

Moderate: Eruptive regions on the solar disk; fewer than five class M x-ray events with centimetric radio bursts and SID observed or expected.

High: Active regions on the solar disk; several class M x-ray events with centimetric radio bursts and strong SID; and/or one or two importance 2 chromospheric flares or class X x-ray events observed or expected.

Very High: Region capable of producing protons on the sun; one or more chromospheric flares of importance 2 or greater with outstanding centimetric radio bursts (500 flux units or greater), class X x-ray bursts, and major SID observed or expected.

X-ray Events:

Class C — any solar x-ray burst with a peak flux of $1\text{-}8 \text{ \AA}$ of less than 10^{-5} Watts M^{-2}

Class M — a solar x-ray burst with a peak flux at $1\text{-}8 \text{ \AA}$ greater than or equal to 10^{-5} but less than 10^{-4} Watts M^{-2}

Class X — a solar x-ray burst with a peak flux at $1\text{-}8 \text{ \AA}$ greater than or equal to 10^{-4} Watts M^{-2}

B.2. Geomagnetic Field:

Quiet: A-index ≤ 7 ; usually no K-indices > 2

Unsettled: $7 < \text{A-index} < 15$; usually no K-indices > 3

Active: $15 \leq \text{A-index} < 30$; a few K-indices of 4

B.3. Geomagnetic Storm:

Minor: $30 \leq \text{A-index} < 50$; K-indices mostly 4 and 5

Major: A-index ≥ 50 ; solar K-indices of 6 or greater

B.4. Major Solar Flare: A flare of optical importance ≥ 28 with a centimetric radio burst of 500 flux units or more; or an X x-ray event of duration ≥ 100 minutes regardless of optical flare importance.

B.5. Proton Flare: Protons by satellite detectors (or polar cap absorption by riometer) have been observed in time association with a chromospheric flare.

B.6. Satellite Proton Event: A proton enhancement detected by earth orbiting satellites with a measure flux of at least 10 protons $\text{cm}^{-2}\text{S}^{-1}$ at $\geq 10 \text{ MeV}$.

B.7. Polar Cap Absorption: A proton induced absorption $\geq 2 \text{ dB}$ during daylight, or $\geq 0.5 \text{ dB}$ during nighttime as measured by a 30-MHz riometer located within the polar cap.

B.8. Stratoswarm: A major disturbance of the winter, polar, middle atmosphere resulting from a breakdown of the polar vortex (a polar nighttime jet stream flowing around the polar cap) into two cells. These disturbances produce strong h₁ absorption for transpolar transmission paths.

Appendix C

Sources for Information Regarding Time and Frequency Standard Services

Information relating to the geophysical alerts, marine storm warnings, and OMEGA System Status Reports that are available on WWV and WWVH are available from the following sources:

Geophysical Alerts:

Space Environment Laboratory
Space Environment Services Center, R43
National Oceanic & Atmospheric Admin.
Boulder, Colorado 80302

Marine Storm Warnings:

Director
National Weather Service
Silver Spring, Maryland 20910

Omega System Status Reports:

US Coast Guard HQ
(G-ONSOD/43)
Washington, D.C. 20590

Publications which describe the NBS time and frequency services may be obtained from:

National Bureau of Standards
Division 524.06
Boulder, Colorado 80303

You can request that you be placed on the mailing list for:

1. NBS Time & Frequency Bulletin -- issued monthly.
2. Special bulletins regarding changes in format or operating schedules of NBS services, notices of upcoming events, etc -- issued when appropriate.
3. Technical notes and other publications of the Time & Frequency Dissemination Group -- issued when published.

Also available is NBS Special Publication 432 (U.S. Government Printing Office number 1979-681-991) which describes the NBS time and frequency dissemination services.

Six Phases of a Project

1. Enthusiasm
2. Disillusionment
3. Panic
4. Search for the Guilty
5. Punishment of the Innocent
6. Praisend Honors for the Non-participants

call prk	statu p	name mailsta	address	town	st	zip	phonehome	phonew
<UOA	FULL	N Nelson Moyer	28 Ealing Dr.	Iowa City,	Ia	52246	319-351-8775 home	319-335-4500 work
<FOAD	FULL	N Pat Wilcox	3122 Sue Lane NW	Cedar Rapids,	Ia	52405	319-396-5232 home	
<OAL	FULL	Y Al Culbert	1218 Oakland Rd NE Unit 'C'	Cedar Rapids,	Ia	52402		
#DOAWL	FULL	Y Terry Cellman	703 Lincoln St.	Ainsworth,	Ia	52201	319-657-3681 home	319-648-2891 work
#BOB	FULL	Y Larry J. Newby	P.O. Box 185	West Burlington,	Ia	52655	319-752-8700 home	319-754-4692 work
#GBX	FULL	N Lee L. McKee	1820 Briarwood Lane	Muscataine,	Ia	52761	319-263-0398 home	
K2OC	FULL	N Jim Bohnsack	1169 Rainbow Dr.	Waterloo,	Ia	50701	319-233-7189 home	
AAOCS	ASSOC	Y Jeff Barker	Box 325	Toledo,	Ia	52342		
KAOCVR	ASSOC	Y Mary Dennis	400 E. Vine	Toledo,	Ia	52342	515-484-4837 home	
WDEJ	FULL	N Wade Walstrom	7431 Marcon Drive NE	Cedar Rapids,	Ia	52401	319-393-8982 home	124-115 ms
WAOFYG	ASSOC	Y Rick Hadley	115 Stenit Dr.	Vinton	Ia	52349		
KOGT	FULL	Y Gary Toomsen	2730 Tower Dr.	Cedar Rapids,	Ia	52401	319-395-9329 home	137-122 ms
KOGVB	FULL	N Gary Ernst	RR 2 West Branch,	Ia	52358	319-643-2287 home		
KFOH	FULL	N Jim Harvey	819 N. Main St.	Goldfield,	Ia	50542	515-825-3323 home	
KJOH	ASSOC	N John Schwandke	1406 N. Marion	Washington,	Ia	52353	319-653-3606 home	319-653-2113 work
NSOH	FULL	Y Jack Muckler	2084 Eastern Blvd. SE	Cedar Rapids,	Ia	52403	319-362-3462 home	
NOHNS	ASSOC	N David Corio	38 Leisure Blvd. NE	Cedar Rapids,	Ia	52402	319-395-7973 home	319-395-0462 work
UKOI	FULL	Y Terry Parker	535 Sierra Dr	Burlington,	Ia	52601	319-753-1557 home	319-753-8591 work
NOICI	FULL	Y Grant Kesselring	RR #7 Box 160	Ottumwa,	Ia	52501	515-934-5320 home	
KOIR	FULL	N Clark Pantel	1610 Hershey Ave.	Muscataine,	Ia	52761	319-263-9150 home	319-263-6141 work
KOINR	ASSOC	N Tom Taylor	RR 1 Shell Rock,	Ia	50670	319-885-4400 home	319-236-1500 work	
WQIZ	FULL	Y Dale Repp	1618 Texas Ave. NE	Cedar Rapids,	Ia	52402	319-393-6724 home	
NOJCM	ASSOC	N John Mayer	500 37th Ave N	Clinton,	Ia	52732	319-243-2414 home	319-244-2389 work
KOJGH	FULL	Y Glen Kesselring	RR #7 Box 160	Ottumwa,	Ia	52501	515-934-5320 home	
ABOM	ASSOC	N Vern Lang	110 E. 2nd St.	Muscataine,	Ia	52761	319-263-2697 home	319-263-5041 work
WEOM	ASSOC	N Tom Gordon	6904 Brentwood Dr. NE	Cedar Rapids,	Ia	52402	319-373-0757 home	319-851-7219 work
WOMJN	ASSOC	Y Joe Finkstein	2210 Empire St.	Marion,	Ia	52302	319-377-6573 home	319-395-2294 work 106-124 ms
NKON	FULL	N Orville Quecker	226 Southcrest	Waterloo,	Ia	50702	319-296-2390 home	319-233-3569 work
WONB	ASSOC	N Jim Livengood	R.R. 1, Ferpe's Lane	Burlington,	Ia	52601	319-752-9310 home	319-752-2701 work
WANHIM	INACT	Y Bob Hill	2037 SW 61st Ave.	Miami FL	33155			
NCOD	FULL	Y Tom Hise	PO Box 104	Shellsburg,	Ia	52332	319-436-7786 home	124-115 ms
NUOR	FULL	Y Steve White	5820 Sanden Rd. NE	Cedar Rapids,	Ia	52401	319-393-4547 home	319-395-4641 work 153-260 ms
WOPPF	FULL	Y George Carsner	411 Terrace Rd.	Iowa City,	Ia	52245	319-338-1601 home	319-351-5033 work
KCOQ	FULL	Y Jeff Russell	2125 Linear Dr. NE	Cedar Rapids,	Ia	52402	319-363-4139 home	319-395-4664 work 124-211 ms
KKOR	ASSOC	N Bob Tillman	P.O. Box 1	Eldora,	Ia	50627		
NARR	FULL	Y Roger Hoffman	17215 Timber Drive	Sterling,	IL	61081	815-625-6647 home	
KDORT	FULL	Y Brad Farrell	1401 Greenwood Dr	Ottumwa,	Ia	52501	515-684-7768 home	515-682-4535 work
KORU	FULL	Y John Lenahan	923 N. 9th St.	Burlington,	Ia	52601	319-753-6883 home	319-752-2731 work
NOSH	FULL	N Steve Miller	Route 6 Box 180	Ottumwa,	Ia	52501	515-684-4753 home	
WOSML	ASSOC	N Doug Byal	4431 Deer View Rd. NE	Cedar Rapids,	Ia	52402	319-393-2974 home	319-395-4283 work 153-200 ms
WOSR	FULL	Y Jim Spencer	3712 Tanager Dr. NE	Cedar Rapids,	Ia	52402	319-393-7353 home	319-395-2305 work 124-115 ms
KBOSY	FULL	N Rick Cordle	515 20th St. SE	Mason City,	Ia	50401	515-424-1535 home	
KKOU	FULL	N Paul Feddersen	703 Eclipse Lane	Clinton,	Ia	52732	319-242-9910 home	319-242-6214 work
WEOU	FULL	Y George Gruenther	1106 S. Leebrick	Burlington,	Ia	52601	319-753-1461 home	319-753-6253 work
KOUYH	FULL	N Timothy Allan	732 Wildwood Rd.	Waterloo,	Ia	50702	319-234-4215 home	319-292-8796 work
WOUZ	ASSOC	N John Nelson	3109 Terry Dr. SE	Cedar Rapids,	Ia	52403	319-365-4432 home	
NYOV	FULL	Y Tom Vinson	10211 Hall Road NE	Cedar Rapids,	Ia	52401	319-393-8087 home	120-105 ms
KOVH	ASSOC	Y Al Groff	1446 Council St. NE	Cedar Rapids,	Ia	52402	319-393-8134 home	319-395-4666 work 124-211 ms
KOVZR	FULL	Y Tom White	RR#2 Jesup,	Ia	50648	319-827-6738 home	319-334-7166 work	
HGOW	ASSOC	Y Keith Erickson	1810 Hillside Dr. NW	Cedar Rapids,	Ia	52405	319-396-8510 home	319-398-3551 work
WOWP	FULL	Y Tom Lindgren	1260 13th Ave.	Marion,	Ia	52302	319-377-4279 home	319-395-1953 work 107-110 ms
KEOV	FULL	Y Tom Krauer	905 LeRoy	Muscataine,	Ia	52761	319-264-3259 home	
KFOZ	FULL	N Jan Clute	320 College Blvd.	Mount Vernon,	Ia	52314	319-895-6635 home	319-927-2143 work
WBOZKG	FULL	Y Chuck Dennis	400 E. Vine	Toledo,	Ia	52342	515-484-4837 home	
WBBZRL	FULL	Y Tom Vavra	682 Palisades Access Rd.	Ely,	Ia	52227	319-848-7604 home	

From the DX "Sheets"

Afghanistan - YA. YAORR. Expected until January 20th. QSL Romeo Stepanenko. Box 812 Sofia 1000. Bulgaria. Send donations to NT2X. There has also been a rumor that Jacky. F2CW will be in Afghanistan with the French Red Cross later.

San Felix - XQOX. A regular on the 14.160, 14.236 and 14.222 nets as well as some "free-lance" operation. This one is easy on the nets. Making the list is another matter!

Madagascar - 5R. A source close to the ARRL tells on one of the DX nets that a copy of 5R8GN license is soon to be on the DXCC desk! A 5R that will pass

muster at ARRL HQ!?

HELP!

I need it! I know we are all busy, but surely you have something that belongs on the pages of this newsletter next time! I certainly am thankful for much of what was provided for this months newsletter. This is your newsletter. I don't want to have to make stuff up, but if I have to I will, and everyone is fair game! After all, Glen got Rig-mortis this month!

GOOD DXING IN 1991!

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Jim Spencer W0BR
124-115

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